

Monday, August 8, 1994 5:51 PM

Page 1

EDITED 08/08/94.CON.SEQ Map (1 > 1643) Site and Sequence

Enzymes : All 417 enzymes (No Filter)

Settings : Circular, Certain Sites Only, Standard Genetic Code

GGCACGAGCGGCCTGCCTGGCTGACTTACAGCAGTCAGACCTCTGACAGGTTCATGGCTATGATGGAGGTCC

70

CCGTGCTCGCCGACGGACCTGAATGTCGTCTGAGACTGTCCAAGTACCGATACTACCTCCAGG

G T S G C L A D L Q Q S D S D R F M A M M E V

A R A A A A W L T Y S S Q T L T G S W L . W R S

R H E R L P G . L T A V R L . Q V H G Y D G G P

P V L P Q R A S K C C D S E S L N M A I I S T W

A R A A A A Q S V . L L . V R V P E H S H H L D

C S R S G P Q S V A T L S Q C T . P . S P P G

AGGGGGGACCGAGCCTGGGACAGACCTGCGTGCTGATCGTATTCACAGTGCTCCTGCAGTCTCTG

140

TCCCCCTGGGTCGGACCCCTGTCTGGACGACGACTAGCACTAGAAGTGTACGAGGACGTACAGAGAGAC

Q G G P S L G Q T C V L I V I F T V L L Q S L C

R G D P A W D R P A C . S . S S Q C S C S L S

G G T Q P G T D L R A D R D L H S A P A V S L

P P G L R P C V Q T S I T I K V T S R C D R Q

L P S G A Q S L G A H Q D H D E C H E Q L R E T

P P V W G P V S R R A S R S R . L A G A T E R

TGTGGCTGTAACCTACGTGACTTACCAACGAGCTGAAGCAGATGCAGGACAAAGTACTCQAAAAGTGGC

210

ACACCGACATTGAATGCACATGAAATGGTTGCTCGACTTCGTCTACGTCTGTTATGAGGTTTCACCG

V A V T Y V Y F T N E L K Q M Q D K Y S K S G

V W L . L T C T L P T S . S R C R T S T P K V A

C G C N L R V L Y Q R A E A D A G Q V L Q K W

T A T V . T Y K V L S S F C I C S L Y E L L P

H S Y S V H V K G V L Q L L H L V L V G F T A

H P Q L K R T S . W R A S A S A P C T S W F H C

ATTGCTTGTCTAAAGAAGATGACAGTTATTGGGACCCCAATGACGAAGAGAGTATGAACAGCCCC

280

TAACGAACAAAGAATTCTACTGTCAATAACCTGGGGTTACTGCTCTCTACACTTGTGCGGGGA

I A C F L K E D D S Y W D P N D E E S M N S P

L L V S . K K M T V I G T P M T K R V . T A P

H C L F L K R R . Q L L G P Q . R R E Y E Q P L

M A Q K K F S S S L . Q S G L S S S L I F L G Q

N S T E . F F I V T I P V G I V F L T H V A G

Q K N R L L H C N N P G W H R L S Y S C G R

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GCTGGCAAGTCAGTGGCAACTCCGTCAGCTCGTTAGAAAGATGATTTGAGAACCTCTGAGGAAACCAT  
350  
CGACCGTTAGTCACCGTTGAGGCAGTCGAGCAATCTTCTACTAAAACCTTGAGACTCCTTGAGTA

C W Q V K W Q L R Q L V R K M I L R T S E E T I  
A G K S S G N S V S S L E R . F . E P L R K P  
L A S Q V A T P S A R . K D D F E N L . G N H  
Q C T L H C S R . S T L F I I K L V E S S V M  
A P L D L P L E T T L E N S L H N Q S G R L F G N  
S A L . T A V G D A R . F S S K S F R Q P F W

TTCTACAGTTCAAGAAAAGCAACAAAATATTCTCCCTAGTGAGAGAAAGAGGTCTCAGAGAGTAGCA  
420  
AAGATGTCAAGTTCTTCGTTGTTTATAAAGAGGGATCACTCTCTTCTCCAGGAGTCTCATCGT

S T V Q E K Q Q N I S P L V R E R G P Q R V A  
F L Q F K K S N K I F L P . . E K E V L R E . Q  
F Y S S R K A T K Y F S P S E R K R S S E S S  
E V T . S F C C F I E G R T L S L P G . L T A  
R C N L F L L I N R G . H S F S T R L S Y C  
K . L E L F A V F Y K E G L S L F L D E S L L L

GCTCACATAACTGGGACCAGAGGAAGAACACATTGTCTTCTCAAACACTCCAAGAACATGAAAAGGCTC  
490  
CGAGTGTATTGACCTCTGGTCTCTTCTTGTTGTAACAGAACAGAGGTTGAGGTTCTTACTTTCCGAG

A H I T G T R G R S N T L S S P N S K N E K A  
L T . L G P E E E A T H C L L Q T P R M K R L  
S S H N W D Q R K K Q H I V F S K L Q E . K G S  
A . M V P V L P L L L V N D E G F E L F S F A R  
S V Y S P G S S S A V C Q R R W V G L I F L S  
E C L Q S W L F F C C M T K E L S W S H F P E

TGGGCCGCAAAATAACTCCTGGGAATCATCAAGGAGTGGGCATTCTGAGCAACTTGCACCTTGAG  
560  
ACCCGGCGTTTATTTGAGGACCTTAGTAGTCCTCACCCGTAAGTAAGGACTCGTTAACGTGAACTC

L G R K I N S W E S S R S G H S F L S N L H L R  
W A A K . T P G N H Q G V G I H S . A T C T .  
G P Q N K L L G I I K E W A F I P E Q L A L E  
P R L I F E Q S D D L L P C E N R L L K C K L  
Q A A F Y V G P F . . P T P M . E Q A V Q V Q P  
P G C F L S R P I M L S H A N M G S C S A S S

GAATGGTGAACGGTCATCCATGAAAAAGGGTTTACTACATCTATTCCAAACATACTTTGATTCAG

630

CTTACCACTGACCAAGTAGGTACTTTCCAAAATGATGTAGATAAGGGTTGTATGAAAGCTAAAGTC

N G E L V I H E K G F Y Y I Y S Q T Y F R F Q

G M V N W S S M K K G F T T S I P K H T F D F R

E W . T G H P . K R V L L H L F P N I L S I S

F P S S T M W S F P N . . M . E W V Y K R N .

I T F Q D D M F F P K V V D I G L C V K S K L

S H H V P . G H F L T K S C R N G F M S E I E P

GAGGAAATAAAAGAAAACACAAAGAACGACAAACAAATGGTCCAATATATTACAAATACACAAGTTATC

700

CTCCTTATTTCTTTGTGTTCTTGCTGTTACAGGTTATATAATGTTATGTGTTCAATAG

E E I K E N T K N D K Q M V Q Y I Y K Y T S Y

R K . K K T Q R T T N K W S N I F T N T Q V I

G G N K R K H K E R Q T N G P I Y L Q I H K L S

S S I F S F V F F S L C I T W Y I . L Y V L . G

L F Y F F V C L V V F L H D L I N V F V C T I

P F L L F C L S R C V F P G I Y K C I C L N D

CTGACCTATATTGTTGATGAAAAGTGCTAGAAATAGTTGTTGGTCTAAAGATGCAGAATATGGACTCTA

770

GACTGGGATATAACAACTACTTTACGATCTTATCAACACCAGATTCTACGTCTTACCTGAGAT

P D P I L L M K S A R N S C W S K D A E Y G L Y

L T L Y C . . K V L E I V V G L K M Q N M D S

. P Y I V D E K C . K . L L V . R C R I W T L

S G I N N I F L A L F L Q Q D L S A S Y P S .

R V R Y Q Q H F T S S I T T P R F I C F I S E I

Q G . I T S S F H . F Y N N T . L H L I H V R

TTCCATCTATCAAGGGGGATATTGAGCTTAAGGAAATGACAGAATTCTGTTCTGTAACAAATGAG

840

AAGGTAGATAGTTCCCCCTTATAAAACTCGAATTCTTTACTGTCTAAAAACAAAGACATTGTTACTC

S I Y Q G G I F E L K E N D R I F V S V T N E

T P S I K G E Y L S L R K M T E F L F L . Q M S

F H L S R G N I . A . G K . Q N F C F C N K .

E M . . P P I N S S L S F S L I K T E T V F S

G D I L P S Y K L K L F I V S N K N R Y C I L

N W R D L P F I Q A . P F H C F K Q K Q L L H A

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CACTTGATAGACATGGACCATGAAGCCAGTTTTCTGGGGCTTTTAGTTGGCTAACTGACCTGGAAAG  
910  
GTGAACTATCTGTACCTGGTACTTCGGTCAAAAAGCCCGGAAAAATCAACCGATTGACTGGACCTTC

H	L	I	D	M	D	H	E	A	S	F	F	G	A	F	L	V	G	.	L	T	W	K	
T	.	T	W	T	M	K	P	V	F	S	G	P	F	.	L	A	N	.	P	G	K		
A	L	D	R	H	G	P	.	S	Q	F	F	R	G	L	F	S	W	L	T	D	L	E	R

C	K	I	S	M	S	W	S	A	L	K	K	P	A	K	K	T	P	.	S	V	Q	F	S
V	Q	Y	V	H	V	M	F	G	T	K	E	P	G	K	.	N	A	L	Q	G	P	F	
S	S	L	C	P	G	H	L	W	N	K	R	P	R	K	L	Q	S	V	S	R	S	L	

AAAAAGCAATAACCTCAAAGTGAATTCAGTTTCAGGATGATAACTATGAAGATGTTCAAAAATC  
980  
TTTTCTGTTATTGGAGTTCACTGATAAGTCCTACTATGTGATACTTCTACAAAGTTTTAG

E	K	A	I	T	S	K	.	L	F	S	F	Q	D	D	T	L	.	R	C	F	K	K	S
K	K	Q	.	P	Q	S	D	Y	S	V	F	R	M	I	H	Y	E	D	V	S	K	N	
K	S	N	N	L	K	V	T	I	Q	F	S	G	.	Y	T	M	K	M	F	Q	K	I	

F	A	I	V	E	F	H	S	N	L	K	.	S	S	V	S	H	L	H	K	L	F	D	
F	F	C	Y	G	.	L	S	.	E	T	K	L	I	I	C	.	S	S	T	E	F	F	R
F	L	L	L	R	L	T	V	I	.	N	E	P	H	Y	V	I	F	I	N	.	F	I	

TGACCAAAACAAACAAACAGAAAACAGAAAACAGAAAACAAAAACCTCTATGCAATCTGAGTAGAGCAGCCACAA  
1050  
ACTGGTTTGTTGTTGTCTTTGTCTTTGGAGATACGTTAGACTCATCTCGTCGGTGT

D	Q	N	K	Q	T	E	N	R	K	Q	K	N	L	Y	A	I	.	V	E	Q	P	Q	
L	T	K	T	N	K	Q	K	T	E	N	K	K	T	S	M	O	S	E	.	S	S	H	N
.	P	K	Q	T	N	R	K	Q	K	T	K	K	P	L	C	N	L	S	R	A	A	T	

S	W	F	L	C	V	S	F	L	F	C	F	F	R	.	A	I	Q	T	S	C	G	C	
V	L	V	F	L	C	F	V	S	F	L	F	V	E	I	C	D	S	Y	L	L	W	L	
Q	G	F	C	V	F	L	F	C	F	V	F	F	G	R	H	L	R	L	L	A	A	V	V

CCAAAAAATTCTACAACACACACTGTTCTGAAAGTGAATCACTTATCCAAAGAAAATGAAATTGCTGAAA  
1120  
GGTTTTTAAGATGTTGTGTGACAAGACTTCACTGAGTGAATAGGTTCTTTACTTTAACGACTTT

P	K	N	S	T	T	H	T	V	L	K	V	T	H	L	S	Q	E	N	E	I	A	E	
Q	K	I	L	Q	H	T	L	F	.	K	.	L	T	Y	P	K	K	M	K	L	L	K	
T	K	K	F	Y	N	T	H	C	S	E	S	D	S	L	I	P	R	K	.	N	C	.	K

G	F	F	E	V	V	C	V	T	R	F	T	V	.	K	D	W	S	F	S	I	A	S	L
W	F	I	R	C	C	V	S	N	Q	F	H	S	V	.	G	L	F	I	F	N	S	F	
L	F	N	.	L	V	C	Q	E	S	L	S	E	S	I	G	L	F	H	F	Q	Q	F	

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GATCTTCAGGACTCTACCTATCAGTTGCTAGCAGAAATCTAGAAGACTGTCAGCTTCAAACATT

1190

CTAGAAAGTCCTGAGATGGAGTATAGTCAAACGATCGTCTTAGATCTTCTGACAGTCGAAGGTTGTAA

R S F R T L P H I S L L A E I . K T V S F Q T L

D L S G L Y L I S V C . Q K S R R L S A S K H

I F Q D S T S Y Q F A S R N L E D C Q L P N I

D K L V R G . I L K S A S I . F V T L K W V N

S R E P S . R M D T Q . C F D L L S D A E L C .

I K . S E V E Y . N A L L F R S S Q . S G F M

AATGCAATGGTTAACATCTTCTGTCTTATAATCTACTCCTTGTAAAGACTGTAGAAGAAAGCGCAACAA

1260

TTACGTTACCAATTGTAGAAGACAGAAATATTAGATGAGGAACATTTCTGACATCTTCTTCGCGTTGTT

M Q W L T S S V F I I Y S L . R L . K K A Q Q

C N G . H L L S L . S T P C K D C R R K R N N

N A M V N I F C L Y N L L L V K T V E E S A T

I C H N V D E T K I I . E K Y L S Y F F A C C

H L P . C R R D K Y D V G Q L S Q L L F R L L

L A I T L M K Q R . L R S R T F V T S S L A V I

TCCATCTCTCAAGTAGTGTATCACAGTAGTAGCCTCCAGGTTCTTAAGGGACAACATCCTTAAGTCAA

1330

AGGTAGAGAGTTCATCACATAGTGTATCATCGGAGGTCAAAGGAATTCCCTGTTGTAGGAATTAGTT

S I S Q V V Y H S S S L Q V S L R D N I L K S

P S L K . C I T V V A S R F P . G T T S L S Q

I H L S S S V S Q . . P P G F L K G Q H P . V K

D M E . T T Y . L L L R W T E K L S L M R L D F

G D R L Y H I V T T A E L N G . P V V D K L .

W R E L L T D C Y Y G G P K R L P C C G . T L

AAGAGAGAAGAGGGACCACTAAAAGATCGCAGTTGCCTGGTGCAGTGGCTCACACCTGTAATCCAAACA

1400

TTCTCTCTTCTCCGTGGTATTTCTAGCGTAAACGGACCACGTCACCGAGTGTGGACATTAGGGTTGT

K E R R G T T K R S Q F A W C S G S H L . S Q H

K R E E A P L K D R S L P G A V A H T C N P N

R E K R H H . K I A V C L V Q W L T P V I P T

S L L P V V L L D C N A Q H L P E C R Y D W C

F L S S A G S F S R L K G P A T A . V Q L G L M

L S F L C W . F I A T Q R T C H S V G T I G V

EDITED 08/08/94.CON.SEQ Map (1 &gt; 1643) Site and Sequence

TTTTGGGAACCAAGGTGGGTAGATCACGAGATCAAGAGATCAAGACCATACTGACCAACATAGTGAAAC

1470

AAAAACCCCTGGGTTCCACCATCTAGTGCTCTAGTCTAGTTCTGGTATCACTGGTTGTATCACTTTG

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F G N P R W V D H E I K R S R P . . P T . . N
I L G T Q G G . I T R S R D Q D H S D Q H S E T
F W E P K V G R S R D Q E I K T I V T N I V K
K P F G L H T S . S I L L D L G Y H G V Y H F
K P V W P P Y I V L D L S . S W L S W C L S V
N Q S G L T P L D R S . S I L V M T V L M T F G

```

CCCATCTACTGAAAGTGCACAAATTAGCTGGGTGTGTTGGCACATGCCTGTAGTCCCAGCTACTTGAG

1540

GGGTAGAGATGACTTACGTTTAATCGACCCACACAACCGTGTACGGACATCAGGGTCGATGAACTC

```

P I S T E S A K I S W V C W H M P V V P A T .
P S L L K V Q K L A G C V G T C L . S Q L L E
P H L Y . K C K N . L G V L A H A C S P S Y L R
G M E V S L A F I L Q T H Q C M G T T G A V Q S
G D R S F T C F N A P H T P V H R Y D W S S S
W R . Q F H L F . S P T N A C A Q L G L . K L

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AGGCTGAGGCAGGAGAACCGTTGAACCCGGGAGGCAGAGGTTGCAGTGTGGTGAGATCATGCCACTACA

1610

TCCGACTCCGTCCCTCTTAGCAAACCTGGGCCCTCCGTCTCCAACGTCACACCACTCTAGTACGGTGATGT

```

E A E A G E S F E P G R Q R L Q C G E I M P L H
R L R Q E N R L N P G G R G C S V V R S C H Y
G . G R R I V . T R E A E V A V W . D H A T T
A S A P S D N S G P L C L N C H P S I M G S C
L S L C S F R K F G P P L P Q L T T L D H W . V
P Q P L L I T Q V R S A S T A T H H S . A V V

```

CTCCAGCCTGGCGACAGAGCGAGACTTGGTTTC

1643

GAGGTGGACCGCTGTCTCGCTCTGAACCAAAG

```

S S L A T E R D L V S
T P A W R Q S E T W F
L Q P G D R A R L G F
E L R A V S R S K T L
G A Q R C L S V Q N A
S W G P S L A L S P K

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